

Application No.: 10/692,584
Response Dated: August 7, 2006
Reply to Office Action Dated: May 5, 2006

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REMARKS

This is in response to the Office Action dated May 5, 2006, for which a three (3) month period for response was given. Since August 5, 2006 was a Saturday, and August 6, 2006 a Sunday, this paper, and any accompanying papers, are timely filed on Monday, August 7, 2006. Accordingly, no extension of time is believed due. However, should an extension of time be due, the Commissioner is hereby authorized to treat this paper as a petition for any necessary extension of time, and to charge any fees due in connection with such a petition to Deposit Account No. 50-0959, Attorney Docket No. 089498.0447.

Claims 11 through 20 are pending in the application upon entry of this amendment. Claim 11 has been amended to further specify the nature of the present invention. Support for the amendment to claim 11 can be found in the specification as filed. In view of the above, entry and consideration of the amended claims and the remarks which follow is believed due and is respectfully requested.

I. The 35 U.S.C. § 103(a) Rejection:

Claims 11 through 20 have been rejected under 35 U.S.C. §103(a) as unpatentable over Qian et al. (U.S. Patent No. 6,407,155). Qian et al. is directed to methods for producing intercalated layered materials that are produced via the reaction of a layered material (e.g., a layered silicate material) with a coupling agent and co-intercalated with an onium ion spacing/compatibilizing agent and a melt processible oligomer or polymer by melt compounding. As discussed in Qian et al. at column 5, lines 14 through 18, the addition of nanoparticles to a layered material enhances the tensile, dimensional stability, ductility, gas-impermeability and elongation properties of a polymer matrix.

Specifically, the Examiner points to the discussion contained in Qian et al. at column 21, lines 16 through 31 regarding the biaxial stretching of films as evidence that Qian et al. discloses, teaches and/or suggests strain hardening a polymer. Although the Examiner acknowledges that Qian et al. does not teach a measure of strain hardening,

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the Examiner states that it is reasonable to expect that strain hardening results from the biaxial stretching disclosed at column 21, lines 16 through 31 of Qian et al.

As can be seen from the attached listing of the claims, claim 11 has been amended to further specify that the present invention's process for controlling the strain hardening properties of a polymer film occurs at a temperature in the range of about 75°C to about 115°C. Qian et al. clearly fails to disclose, teach or suggest the process of amended claim 11. This is because, as can be seen from the disclosure contained therein, Qian et al. fails to disclose, teach or suggest strain hardening a polymer at any elevated temperature, let alone the temperature range stated in amended claim 11. Additionally, Qian et al. contains no specific example, or examples, in which a polymer film is actually subjected to either biaxially stretching and/or strain hardening.

Thus, for at least the above reasons, Qian et al. fails to render obvious the present invention as recited in claims 11 through 20. As such, withdrawal of the obviousness rejection of claims 11 through 20 is believed due and is respectfully requested.

II. Conclusion:

For the foregoing reasons, the obviousness rejection under 35 U.S.C. § 103(a) is believed to be unfounded. Accordingly, withdrawal of the pending rejection, and allowance of all of the pending claims is respectfully requested.

For at least the foregoing reasons, the present application is believed to be in condition for allowance, and a Notice of Allowance is respectfully requested.

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Should the Examiner wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call.

Respectfully submitted,



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